

LITERATURE REVIEWS

Araki, S. 2000, Isozyme Differentiation between Two Intraspecies Taxa of *Utricularia australis* R. Br. (Lentibulariaceae) in Japan. *Acta Phytotax. Geobot.* 51: 31-36.

The author demonstrates that the plants identified as *U. australis* that grow in Japan can be differentiated into two distinct groups (named f. *australis* and f. *tenuicaulis*) on the basis of isozyme comparison. Different banding patterns have been found for alcohol dehydrogenase (ADH) and phosphoglucosomerase (PGI), the remaining 12 enzymes studied did not yield clear bands or different patterns. The author suggests that the two Japanese groups investigated, corresponding to morphologically defined and geographically segregated taxa, may represent populations resulting from at least two independent invasion events. (JS)

Casper, S.J. and Steiger, J. 2001, A new *Pinguicula* (Lentibulariaceae) from the pre-alpine region of northern Italy (Friuli-Venezia Giulia): *Pinguicula poldinii* Steiger et Casper spec. nov., *Wulfenia* 8: 27-37.

An issue of interest to some botanists is the apparent lack of *Pinguicula leptoceras*/*Pinguicula balcanica* type butterworts in northeast Italy, especially since the conducive climate, geography, and soils of the area suggest they could occur there. Even though the region has been heavily and repeatedly botanized, this kind of *Pinguicula* was never detected. As such, the recent discovery of a new species in this region came as a great surprise. This paper reports on the detection and compares the new plant to related species (i.e. *P. vulgaris*, *P. leptoceras*, *P. balcanica*, *P. reichenbachiana*, and *P. fiorii*).

The new species, *Pinguicula poldinii*, has relatively large flowers with the upper petals reflexed. It is remarkable in having a somewhat irregular number of petals—while most flowers have 5 petals, flowers with 6, 7, or 8 petals (and calyx lobes) are apparently easily observed.

In some ways, this paper raises more mysteries than it answers. The plant's homophyllous nature sets it apart from the (heterophyllous) species most closely related to it. It is also peculiar this plant has never been detected before, even though in one area the plants were even growing on road banks! The paper proposes that *Pinguicula poldinii* has recently colonized these road cuts from as yet undetected nearby populations.

Some skeptical botanists may not believe that the new plant merit separate species status, but the authors of this paper have a great deal of experience with *Pinguicula*, and their opinions cannot be casually discounted. (BR)

Ellison, A.M. & Gotelli, N.J. 2001, Evolutionary Ecology of Carnivorous Plants. *Trends in Ecology and Evolution* 16: 623-629.

The weakest point in this paper is the authors' oversimplification of carnivorous plant phylogeny. Contrary to statements made in the paper, Droseraceae and Dioncophyllaceae (both Nepenthales) are not really independent lineages. They are just not sister groups. It was only a single, eccentric researcher who has maintained a monophyletic origin of all carnivorous plants until the 1980s. The sticky glands of Droseraceae, Drorophyllaceae, and Dioncophyllaceae (as well as the remarkably similar glands in Nepenthaceae and the non-sticky genera in Droseraceae) are actually homologous organs and they are not at all merely homoplastic (cf. CPN 26:34-38, 1997). Although both families probably belong to the same order Ericales (s.lat.), a sis-

ter group relationship between Sarraceniaceae and Roridulaceae is by no means supported unanimously by all gene sequence comparisons (only *rbcL* alignments suggest such a close relationship). The proximity of Byblidaceae to Solanaceae was caused by poor taxonomic sampling in the first (1993) genetic analysis. More recent data suggest a placement of Byblidaceae in Scrophulariales, not in Solanales. Cephalotaceae are not placed in Geraniales but in Oxalidales, which is a separate lineage. It is not sure if Roridulaceae are ancestral to Sarraceniaceae (it is not even clear if the two are sister groups), and therefore it cannot be stated that adhesive traps are "simpler" (from a phylogenetic perspective) than pitchers in Ericales.

Great emphasis is laid on a weak hypothesis that "most" carnivorous plants are restricted to well-lit, nutrient-poor, waterlogged habitats. This generalization and the largest part of the academic speculation derived from it are bound to collapse if butterworts (most of which dwell in shaded situations) or epiphytes (that do not inhabit permanently waterlogged places) are considered. (JS)

Komiya, S., Toyama, M., Okita, S. & Shibata, C. 2001, *Utricularia macrorhiza* Le Conte is Distributed in Northern Japan. *Journal of Japanese Botany* 76:120-122 (in Japanese)

Unfortunately, no English abstract is provided in this paper but the distribution map on p. 121 shows that most probably the plants treated as different Japanese forms of *U. australis* in Araki's paper discussed above are actually two different species, viz. *U. australis* proper and the well-known north American and northeast Asian *U. macrorhiza*. The latter species has not been recorded from Japan before, probably because it had been confused with *U. australis* so far (even by respected authorities such as Peter Taylor). Chorologically a southward range extension of *U. macrorhiza* to northern Japan is plausible, and the present interpretation may be the solution of a series of problems concerning these plants. In this light all records of allegedly fertile specimens of "*U. australis*" should be re-examined very carefully to determine if they really belong to this species. (JS)

5TH INTERNATIONAL CARNIVOROUS PLANT CONFERENCE: CALL FOR PROPOSALS

Dear fellow carnivorous plant enthusiasts,

Now that the 4th International Carnivorous Plant Conference at Tokyo has successfully concluded, the qualification process for the next conference is opened.

According to the geographic/chronological scheme for International Carnivorous Plant Conferences, the next event should preferably be held in Europe, the Near East, or Africa, in 2004.

All persons or societies interested in hosting the 2004 conference in or near the intended region should contact me (Jan Schlauer, Zwischenstr. 11, 60594 Frankfurt/Main, Germany, <jan.schlauer@uni-tuebingen.de>) for further details.

Please note that suggestions for a venue alone (without a proposal to actually organize the conference) cannot be considered in the qualification process.